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PAMELA D. LORD
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December 11, 1989

VIA FEDERAL EXPRESS

E. Jane Kloeckner
Assistant Regional Counsel
United States Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, KS 66101

Re: Cherokee County Superfund Site--RI/FS
Administrative Order on Consent for
Baxter Springs and Treece Subsites

Dear Jane:

Pursuant to our telephone conference call on Thursday, December 7, 1989, we have enclosed copies of three different Consent Orders for your reference which relate to Article IX (Additional Work), Article XX (Dispute Resolution) and recovery of past response costs in the above-referenced Administrative Order on Consent ("Baxter Springs and Treece Order").

The enclosed Region VIII RI/FS Order for The Dow Chemical Company, Dowell-Schlumberger, Inc. and KNEnergy, Inc. contains two pertinent provisions. First, in Section VIII on page 15 of that Order, you will note that Region VIII agreed that Respondents' refusal to perform additional response actions did not constitute a violation of the Consent Order, which is the position the PRPs have proposed in the Baxter Springs and Treece Order. In addition, Section XVIII on page 27 entitled Dispute Resolution provides that EPA will make a "final determination" if an agreement is not reached with the Respondents, which is in accord with our proposed language in the Baxter Springs and Treece Order.

In the same vein, we have enclosed a Region V Order for NL Industries, Inc. The dispute resolution provision contained in Paragraph 19(a) on page 12 of this Order provides that unresolved disputes shall be deemed resolved in favor of the Agency and "deemed to be final agency action" subject to judicial review. This Order coupled with the Region VIII Order provide

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significant support for the PRPs' position that the Baxter Springs and Treece Order should contain a dispute resolution procedure which results in final agency action.

Finally, we have also included a Region VII Order for E.I. DuPont de Nemours and Company which does not contain any language providing for the recovery of past response costs. (This issue was later addressed in the Consent Decree for remedial action at the same site.) This Order supports the PRPS' position that the Baxter Springs and Treece Order need not contain a provision allowing EPA to recover its past costs.

Please call if you have any questions. We look forward to meeting with you on Thursday, December 14.

Very truly yours,



Pamela D. Lord
for
DAVIS, GRAHAM & STUBBS

PDL/vf
Enclosure

cc: Peter Keppler, AMAX (w/o enclosure)
John Richardson, Asarco (w/o enclosure)
Corrine Farris, Eagle-Picher (w/o enclosure)
Arnold Godduhn, Gold Fields (w/o enclosure)
Barry Sams, Eric Dessen and
Janet Smith, NL Industries (w/o enclosure)
Jennifer Tolson, St. Joe Minerals (w/o enclosure)
Laura Grossi-Tyson, Sun Company (w/o enclosure)
Bob Matthews, Gordon Quin (w/o enclosure)
Ken Paulsen (w/o enclosure)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION VIII

IN THE MATTER OF:)
)
THE DOW CHEMICAL COMPANY,)
) DOCKET NO. CERCLA
DOWELL-SCHLUMBERGER, INC.,) VIII-87-06
)
AND)
)
KNEnergy, INC.,)
)
RESPONDENTS.)
)
PROCEEDING UNDER SECTIONS 104(b))
AND 122(d)(3) OF THE COMPREHENSIVE)
ENVIRONMENTAL RESPONSE,)
COMPENSATION, AND LIABILITY ACT)
OF 1980, 42 U.S.C. SECTION 9601 ET)
SEQ., AS AMENDED BY THE SUPERFUND)
AMENDMENTS AND REAUTHORIZATION ACT)
OF 1986 PUB. L. 99-499 100 STAT.)
1613 (1986))

ADMINISTRATIVE ORDER
ON CONSENT
FOR: REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

The parties to this Administrative Order on Consent
("Consent Order"), KNEnergy, Inc., Dowell-Schlumberger, Inc., and
The Dow Chemical Company, having agreed to the entry of this
Consent Order, it is therefore agreed that:

I

JURISDICTION

1. This Consent Order is issued pursuant to the authority
vested in the President of the United States by sections 104(b)
and 122(d)(3) of the Comprehensive Environmental Response,

Compensation, and Liability Act of 1980, 42 U.S.C. section 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 (CERCLA). This authority was delegated to the Administrator of the United States Environmental Protection Agency ("EPA") on January 23, 1987, by Executive Order No. 12,500, 52 Fed. Reg. 2923, and further delegated to the Regional Administrators by EPA Delegation No. 14-14-C on February 26, 1987.

2. For purposes of entering into and enforcing this Consent Order only, the Respondents agree to undertake all actions required by the terms and conditions set forth in sections VI through XXVII of this Consent Order and that the jurisdictional requirements of CERCLA sections 104(b) and 122(d)(3), 42 U.S.C. sections 9604(b) and 9622(d)(3), respectively, have been met.

3. Except as limited by the preceding paragraph and this Consent Order, the Respondents do not waive and explicitly reserve all rights, claims, or defenses which they may have under CERCLA, any other statute, or the common law, in any proceeding regarding this Consent Order. The Respondents specifically deny the Findings of Fact and Conclusions of Law set forth herein. In particular, but not by way of limitation, Respondents reserve all rights, claims, and defenses they have to demonstrate that benzene, ethylbenzene, toluene, or xylene found at or attributable to their facilities which are the subject of this Consent Order are not "hazardous substances" within the meaning of 42 U.S.C. section 9601(14).

4. Pursuant to CERCLA, the State of Wyoming has been notified of this Consent Order.

II

STATEMENT OF PURPOSE

In entering into this Consent Order, the mutual objectives of EPA and the Respondents are:

To determine fully the nature and extent of the threat to the public health and welfare or the environment, if any, caused by the release or threatened release of hazardous substances, pollutants, or contaminants at the Brookhurst Subdivision site (Remedial Investigation) and to evaluate alternatives for the appropriate extent of Remedial Action necessary to prevent or mitigate the migration or release or threatened release of hazardous substances, pollutants, or contaminants from the Brookhurst Subdivision site (Feasibility Study). The activities conducted pursuant to this Consent Order are subject to the approval of EPA and shall be consistent with CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986, and the National Contingency Plan ("NCP"), 40 C.F.R. Part 300 et seq.

III

FINDINGS OF FACT

The following paragraphs summarize the factual determinations made by EPA in support of this Consent Order.

1. The Brookhurst Subdivision site (the site) is located in Natrona County, Wyoming, 1 mile east of the town of Evansville in Sections 5 and 32, Township 33N, Range 78W. The Brookhurst Subdivision is located with the site. The Brookhurst Subdivision is bounded by the North Platte River on the north, Sinclair/Little America Refinery on the west, the Burlington Northern Railroad on the south, and the Brooks-Hastings Industrial Complex on the east. The site contains a mixture of residential land use and industrial land use. The industrial land use area contains or has contained at least 20 business operations, including petroleum refining, transport, and storage operations; petroleum service operations; natural gas processing operations; chemical storage and transportation operations; trucking and truck maintenance and repair operations; lumber yards; various types of construction contractors; and agricultural operations which may have contributed hazardous substances, pollutants, or contaminants to the environment.

2. EPA Region VIII has recommended that the site be proposed for inclusion on the National Priorities List ("NPL").

3. Respondent KNEnergy, Inc., has operated a natural gas compressing, cleaning, odorizing, and transmission plant at the site since 1965.

4. Respondent Dowell-Schlumberger, Inc., operates an oil service company at the site.

5. Respondent The Dow Chemical Company owns the tract of land occupied by and upon which Dowell-Schlumberger, Inc., operates.

6. A shallow alluvial aquifer beneath the site is the principal aquifer for water well use at the site and the primary aquifer of concern to EPA. Based on information collected and investigation conducted to date, the alluvium consists of one hydrogeologic unit which appears to have high permeability both horizontally and vertically. The hydraulic gradient is approximately 2.35×10^{-3} to the northeast. The hydraulic conductivity of this aquifer probably ranges from 100 to 300 feet per day, which would indicate groundwater movement on the order of 80 to 350 feet per year. The principal surface water bodies in the vicinity of the site and of concern to EPA are Elkhorn Creek and the North Platte River.

7. EPA has completed an Expanded Site Investigation of the site and has published the result of this investigation in an Expanded Site Investigation Final Report ("ESI"). EPA has determined that materials defined as "hazardous substances" in section 101(14) of CERCLA, 42 U.S.C. section 9601(14), have been released, continue to be released, and threaten to continue to be released into the air, soil, surface water, and groundwater at the site. These hazardous substances include, but are not limited to, the following: trichloroethylene ("TCE"), tetrachloroethylene, 1,1,1-trichloroethane ("1,1,1 TCA"),

pentachlorophenol ("PCP"), benzene, ethylbenzene, xylene, toluene, and polynucleated aromatic hydrocarbons ("PAHs").

8. As many as six separate plumes of groundwater contamination have been delineated at the site by EPA. EPA has determined that one of these plumes involves the release of toluene, xylene, benzene, and PAH's into the groundwater at and from the KNEnergy plant. In addition, EPA has determined that soils at the KNEnergy plant may be contaminated with trichloroethylene and pentachlorophenol.

EPA has determined that one or more additional plumes at the site involve the release of trichloroethylene, tetrachloroethylene, 1,1,1-trichloroethane, toluene, and ethylbenzene into the groundwater at and from the Dowell-Schlumberger/Dow Chemical Company installation. In addition, EPA has determined that soils at the Dowell-Schlumberger/Dow Chemical Company installation are contaminated with trichloroethylene and toluene.

EPA has also determined that other plumes and other types and sources of contamination at the site may be attributable to other entities, individuals, and facilities which are not parties to this Consent Order.

9. EPA has determined that potential pathways of human exposure to hazardous substances found at the site include, but may not be limited to, ingestion and direct contact with groundwater contaminated with hazardous substances, pollutants,

or contaminants; direct contact with contaminated soil; and direct contact and inhalation of contaminated air.

10. EPA has determined that the population potentially at risk from exposure to hazardous substances found at the site includes, but may not be limited to, the residents of the Brookhurst Subdivision and individuals present at the various residential, industrial, and commercial properties in the vicinity of the Brookhurst subdivision.

11. EPA has classified benzene as a Group A human carcinogen. EPA has classified trichloroethylene and tetrachloroethylene as Group B2 probable human carcinogens. EPA has classified PAHs found at the site, such as benzo(a)pyrene, benzo(a)anthracene, and benzo(b)fluoranthene as Group B2 probable human carcinogens. Pentachlorophenol, trichloroethylene, tetrachloroethylene, toluene, naphthalene, and xylene have been reported to cause adverse health effects in humans and laboratory animals depending upon concentration and situation.

IV

CONCLUSIONS OF LAW

Based on the preceding Findings of Fact, EPA has made the following Conclusions of Law:

1. The Brookhurst Subdivision site is a "facility" as defined in section 101(9) of CERCLA, 42 U.S.C. section 9601(9).

2. KNEnergy, Inc., is an "owner or operator" of a natural gas processing plant within the facility as defined in section 101(20) of CERCLA, 42 U.S.C. section 9601(20).

3. Dowell-Schlumberger, Inc., and The Dow Chemical Company are "owners or operators" of an oil field service installation within the facility as defined in section 101(20) of CERCLA, 42 U.S.C. section 9601(20).

4. KNEnergy, Inc., is a "person" as defined in section 101(21) of CERCLA, 42 U.S.C. section 9601(21).

5. Dowell-Schlumberger, Inc., and The Dow Chemical Company are "persons" as defined in section 101(21) of CERCLA, 42 U.S.C. section 9601(21).

6. Trichloroethylene, tetrachloroethylene, 1,1,1-trichloroethane, polynucleated aromatic hydrocarbons, benzene, ethylbenzene, xylene, toluene, and pentachlorophenol which EPA has determined to be present at the site are "hazardous substances" as defined in section 101(14) of CERCLA, 42 U.S.C. section 9601(14).

7. EPA has determined that the presence at, and the past, present, and potential future migration of the "hazardous substances" set forth in paragraph 6 above, at and from the site, constitute an actual and/or threatened "release" as defined in section 101(22) of CERCLA, 42 U.S.C. section 9601(22).

8. For purposes of this Consent Order, KNEnergy, Inc., is a "responsible party" within the meaning of section 107(a) of CERCLA, 42 U.S.C. section 9607(a).

9. For purposes of this Consent Order, Dowell-Schlumberger, Inc., and The Dow Chemical Company are "responsible parties" within the meaning of section 107(a) CERCLA, 42 U.S.C. section 9607(a).

V

DETERMINATIONS

Based on the Findings of Fact and Conclusions of Law set forth above, EPA has determined that:

1. The actions required by this Consent Order are necessary to protect the public health and welfare and the environment and are in the public interest.

2. KNEnergy, Inc.; Dowell-Schlumberger, Inc.; and The Dow Chemical Company are qualified to properly and promptly perform the actions set forth in this Consent Decree.

VI

WORK TO BE PERFORMED

1. All work performed pursuant to this Consent Order (the "Work") shall be under the direction and supervision of a qualified professional who has expertise in hazardous waste cleanup procedures. Prior to initiating the Work, the Respondents shall notify EPA in writing of the name, title, and qualifications of the supervising professional (Project Coordinator) selected by the Respondents to direct and supervise the Work performed pursuant to this Consent Order and the

identity and qualifications of any contractors or subcontractors who will be used to accomplish the Work performed pursuant to this Consent Order. The Respondents shall amend this notice in writing not later than five (5) calendar days prior to any change in Project Coordinator, contractors, or subcontractors.

2. The Respondents shall, within forty-five (45) calendar days of the effective date of this Consent Order, submit a work plan for a Remedial Investigation/Feasibility Study ("RI/FS") and other Work agreed upon (the "Work Plan") for approval by EPA. The Work Plan will be prepared in accordance with the criteria and requirements set forth in the Statement of Work attached hereto and incorporated herein as Appendix A. The Work Plan will specify, at minimum, the number, time, location, and manner of soil, air, surface water, and groundwater samples, if any, to be taken and shall be sufficient to determine the nature and extent of the threat presented by the release of hazardous substances, pollutants, and contaminants at the site and to adequately develop and evaluate remedial alternatives. Within fourteen (14) calendar days after receipt of the Work Plan by EPA, EPA shall notify the Respondents in writing of EPA's approval or disapproval of the Work Plan or any part thereof. In the event of approval by EPA of the Work Plan, the Work Plan shall be incorporated by reference into this Consent Order, and the terms and schedules therein shall become requirements of this Consent Order. In the event of any disapproval of the Work Plan, EPA shall specify in writing EPA's required additions and amendments

necessary in order that the Work Plan satisfy the criteria and requirements set forth in the Statement of Work attached hereto as Appendix A, and which EPA deems necessary to be included as a prerequisite for approval of the Work Plan. Within fourteen (14) calendar days of receipt of EPA notification of disapproval of the Work Plan, Respondents shall incorporate those additions and amendments into their Work Plan and submit a Revised Work Plan for EPA approval. Upon approval by EPA of the Revised Work Plan, the Revised Work Plan shall be incorporated by reference into this Consent Order, and the terms and schedules therein shall become requirements of this Consent Order. In the event that EPA cannot approve the Revised Work Plan, EPA reserves the right to conduct a complete RI/FS, or any portions thereof, and to seek reimbursement pursuant to section 107 of CERCLA, 42 U.S.C. section 9607, from the Respondents for the costs thereof.

3. Respondents shall provide monthly written progress reports to EPA. These progress reports shall contain: (1) a description of the actions that have been taken toward achieving compliance with this Consent Order during the preceding thirty (30) calendar days; (2) all results of sampling tests, other data, and additional non-privileged information pertinent to the conduct of the RI/FS received by the Respondents within that thirty (30) calendar day period; (3) a description of activities scheduled for and data to be obtained during the next thirty (30) calendar days; and (4) a description of any problems encountered during the preceding thirty (30) calendar days.

4. The Respondents shall provide draft and final reports or plans to EPA according to the schedule contained in the Work Plan. EPA shall review the draft and final reports or plans submitted, and EPA shall notify the Respondents in writing of EPA's approval or disapproval of these reports or plans or any part thereof. In the event of any disapproval, EPA shall specify in writing both the deficiencies and the reasons for such disapproval. Within fourteen (14) calendar days of receipt of EPA notification of draft or final report or plan disapproval, Respondents shall amend and submit to EPA such revised reports or plans. In the event of disapproval, EPA retains the right to conduct a complete RI/FS, or any portion thereof, and to seek reimbursement pursuant to section 107 of CERCLA, 42 U.S.C. section 9607, from Respondents for the costs thereof.

5. Nothing in this section shall limit EPA's authority to order a halt to the Work or to conduct response actions at the site when EPA determines that conditions at the site, whether addressed by this Consent Order or not, present an imminent and substantial endangerment to public health, welfare, or the environment and to seek reimbursement for response actions conducted under this authority pursuant to section 107 of CERCLA, 42 U.S.C. section 9607.

6. All documents, including but not limited to reports, plans, specifications, schedules, notices, or correspondence, submitted pursuant to or required by the terms of this Consent Order shall be hand-delivered or sent by certified mail, return

receipt requested, to the following listed persons or to such other persons as the parties may hereafter designate in writing.

a. Documents to be submitted to EPA shall be sent in triplicate to:

Ms. Laura Clemmens (8HWM-SR)
U.S. EPA Region VIII
999 18th Street, Suite 500
Denver, Colorado 80202-2405

b. Documents to be submitted to Respondents shall be sent to:

Dr. Swiatoslaw W. Kaczmar
O'Brien & Gere
1304 Buckley Road
Syracuse, New York 13321

W. Bruce Thompson, Esq.
Shaw, Spangler & Roth
1700 Broadway, #1400
Denver, Colorado 80290

Lindeke S. Trumbly, Esq.
KNEnergy, Inc.
P.O. Box 15265
Lakewood, Colorado 80215

7. All determinations of EPA under this Consent Order, including approvals or disapprovals of the Work, will be communicated in writing to Respondents.

VII

ADDITIONAL INTERIM WORK

In addition to the Work to be performed by the Respondents as set forth in this Consent Order, the Respondents shall, on or before December 16, 1987, perform the following additional Interim Work at the site:

1. Collect groundwater samples from those existing wells at the site designated as EPA monitoring wells 1-1, 1-2, 1-3, 1-5, 1-6, 1-7, 1-8, 1-9, 1-10, 1-11, 1-12, 1-13, 2-1, 2-2, 2-3, 2-7, 2-8, 2-9, 2-10, 2-11, 2-12, 2-13, 2-14, and 2-15 as indicated in Exhibit B attached hereto; those existing wells designated as KN-GW-1, KN-GW-2, KN-GW-3, and KN-GW-4 as indicated in Exhibit C attached hereto; those existing wells designated as MW-87-2, MW-87-4, MW-87-5, MW-87-6, MW-87-7, and MW-87-8 as indicated in Exhibit D attached hereto; and those existing wells designated as PC-MW-1, PC-MW-2, PC-MW-3, PC-MW-4, PC-MW-5, and PE-GW-1 as designated in Exhibit E attached hereto.

2. Those samples collected pursuant to paragraph 1 of this section shall be analyzed for:

a. those base neutral acid compounds set forth in Exhibit F attached hereto;

b. those volatile organic compounds set forth in Exhibit G attached hereto; and

c. those metals and pesticides set forth at 40 C.F.R. Part 265, Appendix III.

3. Respondents shall use quality assurance, quality control, chain of custody, and standard operating and analytical procedures, in accordance with applicable EPA guidance, and in accordance with the terms and conditions of this Consent Order throughout the sample collection and analysis activities set forth in this section.

VIII

ADDITIONAL RESPONSE ACTIONS

EPA may determine that response actions in addition to those specified in the Work Plan must be initiated at the Brookhurst site. If EPA determines that additional response actions are required, EPA shall request in writing that Respondents perform the additional response actions. Any such requests will be accompanied by a written explanation of the basis for EPA's determination that additional Work is required. No later than ten (10) calendar days following receipt of EPA's request, Respondents shall notify EPA in writing of their acceptance or refusal to conduct the additional response actions. In the event that Respondents agree to conduct the additional response actions, Respondents shall submit a proposed amendment to the Work Plan that describes the additional Work, no later than twenty (20) calendar days after Respondents' acceptance of the additional work. A refusal by Respondents to undertake these additional response actions shall not constitute a violation of this Consent Order. If Respondents refuse to conduct the requested response actions, EPA may take any and all steps it determines are appropriate to implement the additional Work and reserves the right to seek reimbursement pursuant to section 107 of CERCLA, 42 U.S.C. section 9607, from the Respondents for the costs thereof.

IX

QUALITY ASSURANCE

Respondents shall use quality assurance, quality control, and chain of custody procedures in accordance with applicable EPA guidance throughout all sample collection and analysis activities. Respondents shall consult with EPA in planning for, and prior to, all sampling and analysis as detailed in the Work Plan. In order to provide quality assurance and maintain quality control regarding all samples collected pursuant to this Consent Order, Respondents shall:

1. Require that EPA personnel and/or EPA authorized representatives are allowed access to the laboratory(ies) and personnel utilized by Respondents for analyses.

2. Require that the laboratory(ies) utilized by Respondents for analyses performs such analyses according to EPA methods or methods deemed satisfactory to EPA and submits all protocols to be used for analyses to EPA at least ten (10) calendar days prior to the commencement of analyses.

3. Require that the laboratory(ies) utilized by Respondents for analyses participates in an EPA quality assurance/quality control program equivalent to that which is followed by EPA and which is consistent with EPA guidance. As part of such a program, and upon request by EPA, such laboratory(ies) shall perform analyses of samples provided by EPA to demonstrate the quality of each laboratory's analytical data.

X

SITE ACCESS

1. To the extent that the site is presently owned by parties other than those bound by this Consent Order, Respondents will use their best efforts to obtain site access agreements from the present owners. Such agreements shall provide reasonable access to EPA and/or its authorized representatives. In the event that site access agreements are not obtained, Respondents shall notify EPA not later than ten (10) calendar days before access is required regarding their efforts and inability to obtain such agreements. EPA will use its best efforts and all legal authority, to the extent necessary, to assist in obtaining access. Any delays resulting from the failure to obtain such access agreements shall not be deemed a breach of this Consent Order, and any schedule shall be extended, to the extent of the delay, for completion of the Work set forth in this Consent Order. If EPA is unable to obtain access to a given parcel of property, Respondents' obligations, if any, to perform all or a portion of the Work at that parcel of property shall be excused.

2. Respondents agree that EPA and its representatives, agents, and contractors shall be permitted to enter and to move about at the Respondents' facilities at reasonable times and upon reasonable prior notice for the purpose of overseeing all response actions conducted pursuant to this Consent Order. EPA and its representatives agree to conduct themselves at the

Respondents' facilities in a manner which will minimize disruption of the ongoing activities of the facility.

3. Respondents agree to provide EPA and its representatives, agents, and contractors with access to their facilities, in accordance with section 104(e) of CERCLA, 42 U.S.C. section 9604(e), to inspect and copy all records, files, photographs, or other documents or information relating to the Respondents' facilities or this Consent Order which are required to be made available pursuant to section 104(e) of CERCLA, 42 U.S.C. section 9604(e).

4. Nothing in this section limits or otherwise affects any right of entry EPA has pursuant to applicable law.

XI

DESIGNATION OF PROJECT COORDINATORS

1. On or before the effective date of this Consent Order, EPA shall designate a Project Coordinator. The Respondents' Project Coordinator, as identified and designated in section VI of this Consent Order (Work to be Performed), and the EPA Project Coordinator shall be responsible for overseeing the implementation of this Consent Order. To the maximum extent possible, all communications among the parties shall be coordinated through the Project Coordinators.

2. Each party is entitled to replace its Project Coordinator at any time. Any such replacement shall be accomplished by notifying the other party in writing not later

than five (5) calendar days prior to the effective date of the replacement.

3. The EPA-designated Project Coordinator shall have the authority vested in the On-Scene Coordinator under the NCP. This authority includes, but is not limited to, the power to initiate action not inconsistent with the NCP, to terminate actions inconsistent with the NCP, and to complete response activities required by this Consent Order which are not inconsistent with the NCP.

4. The absence of the EPA Project Coordinator from the site shall not be cause for stoppage of the Work to be performed pursuant to this Consent Order.

XII

SAMPLING, DATA AND DOCUMENT AVAILABILITY

1. Respondents and EPA agree to make available to each other, upon reasonable prior request, all sampling, tests, and other analytical data generated by either party pursuant to this Consent Order.

2. Upon timely request of EPA, not to be less than 48 hours prior to initiation of any sampling effort, Respondents shall make available to EPA split samples of any samples collected by them pursuant to the implementation of this Consent Order, provided that EPA will provide the materials and equipment necessary for containerizing, handling, storing, and transporting any splits it takes.

3. Respondents shall notify EPA's Project Coordinator not less than 72 hours prior to the initiation of any sampling, well construction, or other construction activities at the site pursuant to this Consent Order.

4. Each person who performs activities or is at the site pursuant to this Consent Order shall comply with all approved health and safety plans.

5. Respondents may, if they desire, assert a business confidentiality claim, in accordance with 42 U.S.C. section 9604(e)(7), covering part or all of any information submitted or provided to EPA pursuant to this Consent Order, if such claim is allowed by 42 U.S.C. section 9604(e)(7), except that Respondents specifically agree not to assert any confidentiality claims as to any data related to site conditions or sampling or monitoring data generated pursuant to this Consent Order. Information covered by a confidentiality claim will be disclosed by EPA only to the extent permitted by, and by means of, the procedures set forth in 40 C.F.R. sections 2.201-.309 (1986). If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to Respondents.

XIII

RECORD PRESERVATION

Respondents agree that they shall preserve and make available to EPA, during the pendency of this Consent Order and

for a period of six (6) years from the date of termination of this Consent Order, all nonprivileged records or documents in their possession or in the possession of their employees, agents, accountants, contractors, or attorneys that relate to the Work performed at the site pursuant to this Consent Order. At the end of this six (6) year period, and upon prior written request of EPA, Respondents shall make such records available to EPA for inspection prior to destroying any of the records. If EPA requests that some or all documents be preserved beyond the six (6) year period, for a reasonable period of time, Respondents shall comply with EPA's request.

XIV

ADMISSIBILITY OF DATA

Except as provided herein, Respondents hereby waive any evidentiary objection, in any proceeding to enforce this Consent Order, as to the admissibility of any final data generated or evaluated pursuant to this Consent Order. Within twenty-one (21) calendar days of the effective date of this Order, Respondents shall complete a review of the final data obtained by EPA at the site and summarized in the ESI at Tables 6-1 through 6-11, 6-13 through 6-28, and 6-31 through 6-37 (the "referenced ESI data") to determine whether the Respondents have any objections to the admissibility of the referenced ESI data. If the Respondents do not submit a written objection to the referenced ESI data, the Respondents shall have waived any evidentiary objection, in any

proceeding, to enforce this Consent Order, as to the admissibility of the referenced ESI data. For purposes of this section, the term "final data generated, or evaluated" shall be interpreted to mean data that has been verified by the quality assurance/quality control ("QA/QC") procedures required by this Consent Order.

XV

PERFORMANCE DELAYS, FORCE MAJEURE

1. Failure to comply with the requirements of this Consent Order shall not constitute a violation of this Consent Order to the extent that such delay or failure of performance is caused by a "Force Majeure."

2. "Force Majeure" for purposes of this Consent Order is defined as any event arising from causes beyond the reasonable control of Respondents or their contractors, subcontractors, or laboratories that delays or prevents the performance of any obligations under this Consent Order, such as, without limitation, acts of God, vandalism, fires, floods, civil disorder or unrest, or inability to gain such access to the site as may be necessary to perform the Work so long as Respondents have notified EPA pursuant to the terms of section X of this Consent Order (Site Access). "Force Majeure" shall not include increased costs or expense of any of the Work to be performed under this Consent Order, nor the financial inability of Respondents to perform such Work, nor the failure of Respondents to make timely

application for any required approvals or permits and to provide all information required therefor in a timely manner.

3. Respondents shall orally notify EPA within 48 hours following Respondents' discovery that a Force Majeure event has occurred or is likely to occur. In addition, Respondents shall notify EPA in writing as soon as possible, but no later than seven (7) calendar days after Respondents discover or should have discovered that a Force Majeure event has occurred or is likely to occur. Such notice shall describe in detail the cause of the delay; the anticipated duration of the delay; the measures taken and to be taken by Respondents, their contractors, or consultants to prevent or minimize the delay; and the timetable by which these measures have been, are being, and will be implemented. Failure to notify EPA either orally or in writing in accordance with this section shall constitute a waiver of such claim of Force Majeure.

4. If the Parties agree that a delay is or was attributable to a Force Majeure event, the Parties may agree to modify the schedules in the Work Plan to provide such additional time as may be necessary to allow the completion of the specific phase of the Work and, if necessary, any succeeding phase of the Work affected by such delay.

5. If the Parties cannot agree that the reason for the delay was a Force Majeure event, then the dispute shall be resolved by reference to section XVIII of this Consent Order (Dispute Resolution) and Respondents shall have the burden of

demonstrating that the event was a Force Majeure event, that the delay was caused by the Force Majeure event, and that the duration of the delay is or was warranted under the circumstances.

6. Except in circumstances constituting a Force Majeure event under paragraph 2 of this section, for each day that some work product or task completion called for by this Consent Order is overdue, or for which Respondents fail to submit a report or document or otherwise fail to achieve the requirements of this Consent Order, Respondents shall pay the sums set forth below as stipulated penalties. Stipulated penalties shall accrue in the following amounts:

a. For failure to commence Work as prescribed in this Consent Order or the Work Plan: \$5,000 for the first one to seven days of delay, and \$10,000 for each seven-day delay, or part thereof, thereafter;

b. For failure to submit any draft and final reports or plans at the time required pursuant to this Consent Order or the Work Plan: \$5,000 for the first one to seven days of delay, and \$10,000 for each seven-day delay, or part thereof, thereafter;

c. For failure to submit other deliverables required by this Consent Order or the Work Plan: \$5,000 for the first one to seven days of delay, and \$10,000 for each seven-day delay, or part thereof, thereafter.

7. Any stipulated penalties paid pursuant to this Consent Order shall be paid by certified or cashier's check made payable to the Hazardous Substance Response Trust Fund and shall be remitted to:

U.S. Environmental Protection Agency
Superfund Accounting
P.O. Box 371003M
Pittsburgh, Pennsylvania 15251

Payment should be identified as "Stipulated Penalties--Brookhurst Site." A copy of the certified or cashier's check and any transmittal letter shall be sent to EPA's Project Coordinator.

8. The stipulated penalties set forth in this section do not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondents' willful violation or failure or refusal, without sufficient cause, to comply with this Consent Order, which may subject Respondents to a civil penalty of not more than \$25,000 for each day in which such violation occurs or such failure to comply continues, 42 U.S.C. section 9606(b) (1982), or to liability for punitive damages in any amount up to three times the amount of any costs incurred by the Hazardous Substances Response Trust Fund established by sections 221-223 of CERCLA, 42 U.S.C. sections 9631-9633 (1982). 42 U.S.C. section 9607(c)(3).

XVI

REIMBURSEMENT OF COSTS

At the end of twelve (12) calendar months after the effective date of this Consent Order and every twelve (12) months

thereafter, EPA shall submit to Respondents a full accounting of all response and oversight costs incurred by the U.S. Government, not inconsistent with the NCP, with respect to this Consent Order. Respondents shall, within thirty (30) calendar days of receipt of that accounting, remit a check for the amount of those costs, not inconsistent with the NCP, made payable to the Hazardous Substance Response Trust Fund and remitted to:

U.S. Environmental Protection Agency
Superfund Accounting
P.O. Box 371003M
Pittsburgh, Pennsylvania 15251

Payments should be identified as "Reimbursement Costs--Brookhurst Site, Docket Number CERCLA VIII-87-06."

XVII

OTHER CLAIMS

1. This Consent Order does not constitute any decision on pre-authorization of funds under section 111(a)(2) of CERCLA, 42 U.S.C. section 9611(a)(2).

2. In entering into this Consent Order, Respondents waive any right to seek reimbursement under section 106(b)(2) of CERCLA, 42 U.S.C. section 9606(b)(2), for any past costs and costs incurred in complying with this Consent Order. This provision shall not be construed as a waiver of any right of reimbursement that Respondents may have against any party other than the United States and the Hazardous Substance Response Trust Fund established by sections 221-223 of CERCLA, 42 U.S.C. sections 9631-9633.

3. Any claim of any Respondent against any other responsible party shall be subordinate to the rights of the United States in accordance with 42 U.S.C. section 9613(f)(3)(C).

4. EPA is under no obligation to assist Respondents in any contribution, indemnification, or other suit concerning the subject matter of this Consent Order.

XVIII

DISPUTE RESOLUTION

In the event that a dispute develops between EPA and Respondents with respect to the interpretation or implementation of this Consent Order, Respondents shall notify EPA in writing and the Parties will undertake negotiations for a period not to exceed ten (10) calendar days from the receipt of the written notice in a good faith effort to resolve their differences. If agreement cannot be reached on any dispute within this ten (10) calendar day period, EPA shall make a final determination and shall provide a written statement of the basis of its determination to Respondents.

XIX

OTHER APPLICABLE LAWS

All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable Federal, State, and local laws and regulations,

unless an exemption from any such requirement is provided in this Consent Order, the NCP, or CERCLA.

XX

INDEMNIFICATION OF THE UNITED STATES

Respondents agree to indemnify and save and hold harmless the United States, its agencies, departments, and employees from any and all claims or causes of action arising from or on account of acts or omissions of Respondents, their agents or assigns, in carrying out the activities performed pursuant to this Consent Order. EPA is not a party to any contract involving Respondents at the site.

XXI

COMMUNITY RELATIONS AND PUBLIC COMMENT

1. The Respondents shall cooperate with EPA in providing RI/FS information to the public. Upon the reasonable request of EPA, the Respondents shall participate in the preparation of all appropriate information disseminated to the public and in public meetings which may be held or sponsored by EPA to explain activities at the site or concerning the RI/FS process at the site.

2. Within ten (10) calendar days of the date of execution of this Consent Order by EPA, EPA shall announce the availability of this Consent Order to the public for review and comment. EPA shall accept comments from the public for twenty-one (21)

calendar days after such announcement. At the end of the twenty-one (21) calendar day period, EPA shall review all such comments and shall either:

a. determine that this Consent Order should be made effective in its present form, in which case the EPA Project Coordinator shall so notify the Respondents in writing; or

b. determine that modification of this Consent Order is necessary, in which case the EPA Project Coordinator will inform the Respondents in writing as to the nature of all changes deemed necessary by EPA. If the Respondents agree to the modifications, the Consent Order shall be so modified. In the event that the Respondents do not agree to modifications required by EPA as a result of public comment, this Consent Order shall be withdrawn by EPA and shall be null and void. In such an event, EPA reserves all rights to take such actions as it deems necessary including, but not limited to, the right to conduct a complete RI/FS, or any portion thereof, and to seek reimbursement pursuant to section 107 of CERCLA, 42 U.S.C. section 9607, from the Respondents for the costs thereof.

XXII

EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

1. The effective date of section VII of this Consent Order (Additional Interim Work) shall be the date on which this Consent Order is signed by EPA. In the event that EPA determines that this Consent Order should be made effective in its present form

following Public Comment as set forth in section XXI of this Consent Order (Community Relations and Public Comment), the effective date of this Consent Order shall be that date on which Respondents, or any one of them, receive written notice from EPA pursuant to section XXI(2)(a) of this Consent Order that EPA intends that this Consent Order be effective. In the event that modification of this Consent Order is necessary, following Public Comment as set forth in section XXI(2)(b) of this Consent Order, the effective date of such modified Consent Order shall be the date on which it is signed by EPA.

2. This Consent Order may be amended by mutual agreement of EPA and Respondents. Such amendments shall be in writing and shall be effective as of the date the amendment is signed by EPA.

XXIII

WAIVER OF SECTION 122 PROCEDURE

Respondents hereby agree that, for purposes of this Consent Order, use of those procedures set forth in section 122 of CERCLA, 42 U.S.C. section 9622, would not be practicable, in the public interest, expedite the completion of the RI/FS at the site, nor minimize litigation, and hereby waive use of those procedures as set forth in section 122 of CERCLA.

XXIV

PARTIES BOUND

1. This Consent Order shall apply to and be binding upon EPA and Respondents, and upon all persons, contractors, and consultants acting for or on behalf of EPA or Respondents.

2. Respondents shall provide a copy of this Consent Order to their Project Coordinator and notify any additional contractors, subcontractors, and consultants retained to conduct any portion of the Work performed pursuant to this Consent Order of the existence of this Consent Order and its availability not later than fourteen (14) calendar days from the effective date of this Consent Order.

XXV

TERMINATION AND SATISFACTION

This Consent Order shall terminate when Respondents certify that all activities required under this Consent Order have been performed (the "Certification"), and EPA has approved the Certification. EPA shall approve or disapprove the Certification within six (6) months of submittal of the Certification of Respondents.

XXVI

COUNTERPARTS

This Consent Order may be executed and delivered in counterparts, each of which when executed and delivered shall be

deemed an original, but such counterparts shall together constitute one and the same document.

XXVII

AUTHORITY OF SIGNATORIES

Each of the signatories of this Consent Order states that he or she is fully authorized to enter into the terms and conditions of this Consent Order and to bind legally the party represented by him or her to the Consent Order.

IT IS SO AGREED AND ORDERED:

DATED this _____ day of _____, 1987, with the agreement and consent of the parties.

U.S. ENVIRONMENTAL PROTECTION AGENCY

BY: _____
James J. Scherer
Regional Administrator
EPA Region VIII

DOWELL-SCHLUMBERGER, INC.

BY: _____

THE DOW CHEMICAL COMPANY

BY: _____

KNEnergy, INC.

BY: Robert Wilson

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

IN THE MATTER OF:)

NL Industries, Inc.,)
A New Jersey Corporation.)

U.S.EPA Docket No. _____

PROCEEDING UNDER SECTION 106(a))
OF THE COMPREHENSIVE ENVIRONMENTAL)
RESPONSE, COMPENSATION, AND LIABILITY)
ACT, 42 U.S.C. §9606(a))AGREEMENT AND ADMINIS-
TRATIVE ORDER BY CONSENT

WHEREAS, the United States Environmental Protection Agency (hereinafter: "U.S. EPA"), the State of Illinois acting by and through its agency, the Illinois Environmental Protection Agency (hereinafter: "Illinois EPA") and NL Industries, Inc. (hereinafter: "NL Industries") have entered into certain discussions arising from the deposit of materials on or near a certain parcel of land previously owned by NL Industries and situated in Granite City, Illinois (hereinafter: the "site"), and

WHEREAS, Illinois EPA has made demand upon NL Industries for certain money that it contends it has expended with respect to the site, and U.S. EPA has made certain claims upon NL Industries, under either the Resource Conservation and Recovery Act ("RCRA") and/or the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), and NL Industries has denied any liability to the State of Illinois or any liability arising under RCRA or CERCLA, and further denies that

its actions or the actions of any party in interest with NL Industries has given rise to any liability on the part of NL Industries, and

WHEREAS, U.S. EPA, Illinois EPA (hereinafter collectively: "the Agencies") and NL Industries have reached agreement on procedures to resolve certain of these disputes which NL Industries hereby enters into without the admission of any liability whatsoever, and solely for the purpose of eliminating needless and costly administrative disputes except that Illinois EPA and NL Industries do not dispute the findings of fact set out in Section D, infra; it is

HEREBY STIPULATED AND AGREED by and among the attorneys for the respective parties hereto, and upon such stipulation and agreement, it is hereby Ordered:

A.

Jurisdiction

1. This Agreement and Administrative Order by Consent (hereinafter: "Consent Order") is issued pursuant to the authority vested by the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §9606(a), and delegated to the Administrator of the United States Environmental Protection Agency on October 9, 1981, by Executive Order 12316, who duly redelegated the authority to the Regional Administrator of Region V on April 1, 1983. This Consent Order is also entered into by the Illinois EPA pursuant to Ill. Rev. Stat., Ch. 111 1/2, Section 1004.

2. Illinois EPA's and NL Industries' obligations and liabilities with respect to, and arising from the site, shall be governed in accordance with the ensuing paragraphs.

B.

Parties Bound

3. This Consent Order shall apply to and be binding upon the following parties:

(i) NL Industries, its officers, employees, agents and contractors in their capacity as Corporation representatives, successors, assigns, and subsidiaries;

(ii) The U.S. EPA; and

(iii) The People of the State of Illinois by the Illinois EPA and the Office of the Attorney General.

C.

Notice To The State

4. The notice requirement of Section 106(a) of CERCLA has been satisfied.

D.

Findings Of Fact

5. The site is a triangular parcel of property situated at 16th Street and Cleveland Boulevard in Granite City, Illinois comprising of approximately 15.8 acres. The site contains a slag pile estimated to be 3 1/2 acres situated on the property of Taracorp, Inc. and the property of others. Situated at the site is a blast furnace, a refining area and a metal fabrication operations facility.

6. NL Industries owned and operated a secondary lead smelter on the site from approximately 1928, until August 1979.

7. From August 1979 until at least the effective date of this Consent Order Taracorp, Inc. has had title to the site and at least for one year during the aforesaid time period Taracorp operated a secondary lead smelter at the site.

8. During the period that NL Industries owned the site, it operated a secondary lead smelter which was primarily utilized in the smelting of lead bearing scrap or used batteries and to some extent telephone cable sheathing. NL Industries asserts that the secondary lead smelter operations were based on a tolling arrangement whereby entities, including C & D Batteries, 3043 Walton Road, Plymouth Meeting, Pennsylvania 19462; Del-Remy Division, General Motors Corp., P.O. Box 2439, Anderson, Indiana 46011; ESB, Inc., P.O. Box 8109, Philadelphia, Pennsylvania 19101; Globe Union, Inc., P.O. Box 591, Milwaukee, Wisconsin 53201; Gould, Inc., GNB Batteries, P.O. Box 43484, St. Paul, Minnesota 55164; General Battery, P.O. Box 1262, Reading Pennsylvania 19603; and Prestolite, P.O. Box 931, Toledo, Ohio 43601 would deliver used batteries to the site (C & D Batteries and Prestolite may be owned by Allied Corporation, P.O. Box 2332R, Morristown, New Jersey, 07960), an assertion with which U.S. EPA and Illinois EPA do not disagree. NL Industries contends that it would process these scrap materials owned by the above noted entities at its facility and thereafter return antimonial lead and lead oxide to the entities that delivered the used batteries and wire to the site, a contention with which

U.S. EPA and Illinois EPA do not disagree.

9. Waste blast furnace slag and other processed wastes were disposed of at the site by depositing the slag in the waste slag piles along the southeast border of the site.

10. The Regional Administrator of Region V, U.S. EPA, based on information available to him, has determined (a) that the site is a "facility" as defined in Section 101(9) of CERCLA; (b) NL Industries is a "person" as that term is defined in Section 101(21) of CERCLA; (c) "hazardous substances" as defined in Section 101(14) have been disposed of at the site and the threatened migration of such hazardous substances into the air above or the groundwater beneath the site, may constitute a "release or threat of release" as that term is defined in Section 101(22) of CERCLA; (d) NL Industries is a "responsible person" within the meaning of Section 107 of CERCLA; and (e) the threatened release may present an imminent and substantial endangerment to the public health or welfare or the environment within the meaning of Section 106(a) of CERCLA.

E.

Site Access

11. The site and nearby properties are not within the ownership or control of NL Industries. NL Industries will use its best efforts to obtain appropriate voluntary site access agreements from the present owners with express authority at least to drill and install monitoring wells and take samples of groundwater, surface water, soils and wastes as required, including authority necessary to provide access to U.S. EPA and

its authorized representatives pursuant to the terms of this Consent Order. NL Industries shall not be required to compensate the site owners for such agreement nor to commence any proceedings to obtain such access agreements. In the event that NL Industries obtains such agreements, evidence of those agreements shall be furnished to U.S. EPA within ten days of their receipt by NL Industries.

12(a). In the event that NL Industries is unable to obtain such access agreements within sixty days of the last party's signature to this Consent Order as provided at the foot of this document then EPA may exercise its authority, as it deems appropriate to secure access to effectuate the "RI/FS", described in Section "F", below and the effective date of this Consent Order shall be subject to obtaining such authority and adjusted to reflect the date that EPA informs NL Industries that such access has been obtained or the date that access has otherwise been obtained.

(b). In the event that NL Industries uses its best efforts to secure access, and U.S. EPA does not secure access, and access is not achieved otherwise, then those circumstances may constitute a force majeure event within the meaning of Section "P" of this Consent Order for that element of work.

F.

Remedial Investigation And Feasibility Study

13(a). In accordance with the statement of work previously negotiated, and as amended herein, (annexed hereto and

incorporated herein as Exhibit "A"), NL Industries shall perform a remedial investigation (RI) and a feasibility study (FS) with respect to the site.

(b). The FS shall contain NL Industries' conceptual proposal, with a schedule for implementations of remedial action to protect the public health, welfare and as defined by Section 101(8) of CERCLA, from the actual and threatened release of hazardous substances from the site.

14(a). NL Industries shall submit to U.S. EPA a Safety Plan, the Quality Assurance/Quality Control ("QA/QC") Plan as set forth on pages 12-13 of Exhibit "A" and a Work Plan within thirty (30) days of the effective date of this Consent Order. The QA/QC Plan will include the sampling plan associated with task 3(a) as set forth on page 6 of Exhibit "A". Offsite properties, where access will be required for sampling, will be identified in the sampling plan. The Work Plan requirement will be satisfied by submittal of a project proposal prepared by NL Industries' Consultant. Upon final agency action with respect to the Work Plan, the Work Plan shall become an integral and enforceable element of this Order, subject, however, to the provisions for dispute resolution set out below.

(b). The RI and the FS as described in Exhibit "A" are agreed to by the parties to this agreement. The following work shall be performed by NL Industries in accordance with the following schedule, which is depicted in Exhibit "B", "Anticipated Project Completion Schedule":

- (1) Within one hundred seventy (170) days

of final agency action with respect to subparagraph "(a)" above, NL Industries shall complete the work associated with Tasks 1, 2, 3, 4 and 5, and submit the draft Remedial Investigation Report identified as Task 6, as set forth on page 11 of Exhibit "A". Within thirty (30) days after final agency action with respect to the draft Remedial Investigation Report, NL Industries will submit the final Remedial Investigation Report.

(2) NL Industries will not be required to submit to U.S. EPA the work plan as set forth on page 14 of Exhibit "A".

(3) NL Industries will not be required to submit to U.S. EPA the work required under Task 9, described at page 16 of Exhibit "A", as the information will be generated by the RI.

(4) Within fifteen (15) days after final agency action with respect to the work described in subparagraph (1) above, NL Industries shall present to U.S. EPA in a meeting, the established remedial response objectives and the identified Remedial Alternatives, as set forth as Task 10 at page 16 of Exhibit "A". This presentation

will be followed and confirmed by a letter report.

(5) Within seventy-five (75) days of final agency action of the work described in subparagraph (1) above, NL Industries shall present to U.S. EPA in a meeting, the Initial Screening of Alternatives, as described as Task 11 at pages 17-18 of Exhibit "A". This presentation will be followed and confirmed by a letter report.

(6) Within a time to be negotiated between the parties if it is required under the circumstances, NL Industries shall complete the Laboratory Studies Work, described as Task 12 at page 18 of Exhibit "A".

(7) Within two hundred (200) days of final agency action of the work described in subparagraph (1) above, NL Industries shall submit to U.S. EPA the draft preliminary FS Report, described as Task 13e on page 21 of Exhibit "A". The draft preliminary FS Report will include the work required under Tasks 10 through 13 of Exhibit "A". Within thirty (30) days after final agency action with respect to the draft preliminary FS Report, NL Industries will submit the final preliminary FS Report.

(8) Within forty-five (45) days of final agency action with respect to subparagraph (7) above, and upon the selection of a lawful and reasonable Remedial Alternative by U.S. EPA and Illinois EPA, NL Industries will submit to U.S. EPA the conceptual design provided for in Task 14 on page 21 of Exhibit "A", and the final report as described as Task 15 at page 21 of Exhibit "A".

(c). Within ten (10) days of the selection of the Remedial Alternative, if not sooner, NL Industries agrees to enter into negotiations with U.S. EPA and Illinois EPA for the implementation of the remedial clean-up determined by the RI/FS process.

(d). NL shall accomplish the work set forth in this section in accordance with applicable provisions of Title 40 C.F.R. §§ 300.68(e) through (j). All submittals by NL Industries under this Consent Order shall be in conformance with U.S. EPA Guidance for Remedial Investigations and Guidance for Feasibility Studies.

G.

Review Of Submittals And
Resolution Of Disputes

15(a). U.S. EPA and Illinois EPA shall review all submittals and presentations made by NL Industries as required by Section F of this Consent Order within thirty (30) days of

receipt (unless either agency informs NL Industries that more time is needed), and U.S. EPA shall notify NL Industries by the thirtieth day, or the first working day thereafter, of the approval or disapproval of the submittal. In the event that the submittal is approved, it shall be considered an integral and enforceable part of the Consent Order. In the event the submittal is disapproved in whole or in part, the U.S. EPA shall notify NL Industries of the specific inadequacies in writing, and shall indicate the necessary amendments or revisions or need for further study and a schedule therefor. The writing containing such disapproval shall state, with specificity, (i) the extent that the work does not conform to Exhibit "A", or (ii) the extent that it does not comply with applicable regulations as set forth above.

(b). NL Industries may, at its own risk, proceed with the work pending final agency action.

16. Within thirty (30) calendar days of receipt of any notice of disapproval, or on the first working day thereafter, NL Industries shall submit revisions to correct the inadequacies and begin any further study required or NL Industries shall state in writing the reasons why the submittal, as originally transmitted, should be approved.

17. If, within thirty (30) calendar days from the date of NL Industries' submission of revisions pursuant to Paragraph 16 above, or on the first working day thereafter, the parties have not reconciled all issues in disagreement, U.S. EPA shall present to NL Industries such changes to the submittal as it

deems necessary. If NL Industries believes that the changes are inconsistent with this Consent Order, NL Industries shall notify the Agencies within fifteen (15) calendar days of receipt of such changes, or on the first working day thereafter. If NL Industries does not so notify the Agencies, NL Industries shall be deemed to have assented to the changes made by the Agencies and said changes shall become an integral and enforceable part of the Consent Order as specified in Paragraph 14, above.

18. If NL Industries notifies the Agencies of its objections to the changes, the parties shall have an additional fifteen (15) calendar days from receipt of NL Industries notification to reconcile their differences. Changes agreed to among the parties during this fifteen (15) calendar day period shall be reduced to writing and become an integral and enforceable part of this Consent Order.

19(a). Any issue not reconciled by agreement of all the parties to this Consent Order within the fifteen (15) calendar day period specified in Paragraph 18 above, shall be deemed resolved in favor of the agencies and shall be deemed to be "final agency action" subject to judicial review and NL Industries shall have the right to seek judicial review of any such final agency action in the appropriate District Court. Should NL Industries and the agencies not be able to informally resolve a dispute the parties may agree to extend time schedules or implementation of this Order, pending resolution of the dispute in an appropriate court.

(b). With respect to such final agency action, the agencies will endeavor to develop a unified position but may maintain differing positions to the extent that such positions are mandated by differing statutes or regulations. The foregoing notwithstanding, all controversies arising under this Administrative Order on Consent, including those specifically arising under this paragraph, are controversies arising under CERCLA, within the meaning of Section 113(b) of CERCLA.

H.

Remedies For Noncompliance

20. Nothing herein shall waive U.S. EPA's right to enforce this Consent Order under Section 106(b) of CERCLA.

21. Nothing herein shall waive U.S. EPA's right to take any action authorized by Sections 104, 106(a) and 107 of CERCLA or any other law; or, the Illinois EPA's right to take any action authorized by Illinois or any other law, should NL Industries fail to maintain compliance with this Consent Order or should NL Industries violate any state or federal law or regulation as a result of actions taken in compliance with this Consent Order.

I.

Creation Of Endangerment

22. In the event that the Regional Administrator of Region V, U.S. EPA or the Illinois EPA determines that activities implementing or in noncompliance with this Consent Order or any other circumstances or activities are creating an imminent and

substantial endangerment to the health and welfare of the people on the site or in the surrounding area or to the environment, the Regional Administrator of Region V, U.S. EPA or the Illinois EPA may order NL Industries to stop further implementation of this Consent Order for such period of time as needed to abate the endangerment or may petition a court of competent jurisdiction for such an order. U.S. EPA does not waive its right to order further abatement measures should an endangerment be created. During this period of time, NL Industries' obligations relating to the cause of the endangerment pursuant to this Consent Order shall be suspended and the time schedule for implementation shall be extended by the time period of the delay.

J.

Reporting

23(a). NL Industries shall submit written progress reports which describe the actions which have been taken toward achieving compliance with Paragraph 14(b)(1) of this Consent Order during the previous two months, as well as activities which are scheduled for the next two months to U.S. EPA, the Illinois EPA, and the Illinois Attorney General's Office by the tenth day of every second month following the final agency action with respect to subparagraph 14(a).

(b). Such progress reports and any other documents submitted pursuant to this Consent Order shall be sent by certified mail return receipt requested to the agency at the

following address (or to such other address as the agency may hereafter designate in writing):

Director, Waste Management Division
U.S. EPA, Region V
Attn:
230 S. Dearborn Street
Chicago, Illinois 60604

Director
Illinois Environmental Protection
Agency
Attn: Jim Frank
2200 Churchill Road
Springfield, Illinois 62706

and

Deputy Chief, Environmental
Control Division
Illinois Attorney General's Office
500 South Second Street
Springfield, Illinois, 62706

(c). U.S. EPA, Illinois EPA or Illinois Attorney General's Office may, in their discretion, direct that reports or plans or proposals made pursuant to the Consent Order be submitted at extended intervals or that no further reports need be submitted.

(d). Any notice or any writing to be sent or given by the agencies to NL Industries shall be sent by certified mail, return receipt requested to Mr. William Weddendorf, NL Industries, Inc., Wyckoffs Mill Road, Hightstown, New Jersey 08520, or to such other address as NL Industries may designate in writing.

(e). The foregoing notwithstanding, any submittals, notices or any other writing required by this Order where time

is of the essence, shall be sent by Express Mail or Courier Service.

K.

Sampling, Access And
Data/Document Availability

24(a). U.S. EPA, Illinois EPA and NL Industries shall make available to each other the results of sampling, tests or other data generated by any of them, or on their behalf, with respect to the implementation of this Consent Order.

(b). At the request of U.S. EPA or Illinois EPA, NL Industries shall allow split or duplicate samples to be taken by either or both agencies of samples collected by NL Industries during the implementation of the Consent Order. NL Industries shall notify the Project Coordinators for the U.S. EPA and Illinois EPA not less than ten (10) working days in advance of any sample collection for which the U.S. EPA or Illinois EPA Project Coordinators have indicated that they may wish to obtain split or duplicate samples.

(c). Subject to Paragraph 11 above, NL Industries shall assure that U.S. EPA, Illinois EPA or their respective authorized representatives shall have authority to enter all property at the site at all reasonable times for the purposes of, inter alia: inspecting records, operating logs and contracts related to NL Industries' implementation of this Consent Order at the site; reviewing the progress of NL Industries in carrying out the terms of this Consent Order; obtaining samples and

conducting such tests as U.S. EPA and Illinois EPA Project Coordinators deem necessary; and verifying the data submitted to U.S. EPA or Illinois EPA or NL Industries.

(d). The parties also agree that they shall preserve, during the pendency of this Consent Order and for a minimum of seven (7) years after its termination, all records and documents in their possession or in the possession of their divisions, employees, agents, accountants, contractors or attorneys which relate in any way to the site, despite any document retention policy to the contrary.

L.

Project Coordinators

25(a). NL Industries shall appoint and designate a Project Coordinator and an alternate for the purposes of overseeing the implementation of this Consent Order. NL Industries shall designate such Coordinator and inform the agencies in writing within ten (10) days of the effective date of this Consent Order. U.S. EPA and Illinois EPA shall each choose one Coordinator. NL Industries shall be informed within ten (10) working days of the name and address of the agency Coordinators. To the maximum extent possible, except as specifically provided in this Consent Order, communications among NL Industries, U.S. EPA and Illinois EPA concerning the terms and conditions of this Consent Order shall be made between the Coordinators. Each

Coordinator shall be responsible for assuring that all communications from the other parties are appropriately disseminated and processed within his respective organization.

(b). The Project Coordinators shall have the authority to: (1) take samples; (2) direct that work stop for a period not to exceed seventy-two (72) hours whenever a Project Coordinator determines that activities at the site may create a present danger to public health or welfare or the environment; (3) observe, take photographs and make such other reports on the progress of the work as the Coordinator deems appropriate; (4) review records, files and documents relevant to the Consent Order; and (5) in addition, the NL Industries' Coordinator shall have authority to make or authorize minor field modifications in the RI/FS or in techniques, procedures or designs utilized in carrying out this Order which are necessary to the completion of the project.

(c). The Project Coordinators or alternates shall be available or on reasonable call during all hours of work.

(d). The Agencies' Project Coordinators will have the same authority as is vested in any on-scene Coordinator under 40 C.F.R. §§ 300.54(b) and 300.71.

M.

Confidential Information

26. NL Industries may assert a business confidentiality claim covering part or all of any information requested by this Consent Order pursuant to 40 C.F.R. §2.203(b) or Illinois Law. However, analytical data shall not be claimed confidential by NL Industries. Information determined to be confidential by U.S.

EPA in accordance with 40 C.F.R. Part 2 or Illinois law will be afforded the protection specified therein. If no confidentiality claim accompanies the information when it is submitted to U.S. EPA, it may be made available to the public by the Agency without further notice to NL Industries.

N.

Other Claims

27. Nothing herein is intended to release discharge, or in any manner affect any claims, causes of action or demands in law or equity against any person, firm, partnership or corporation not a signatory to this Consent Order from any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release or disposal of any materials or hazardous substances, at, to or from the site. The parties to this Consent Order expressly reserve all rights (including any right to contribution possessed by NL Industries against any other parties who may be responsible for actual or threatened releases at the site), claims, demands and causes of action they have or may have against any and all other persons and entities who are not parties to this Consent Order.

28. NL Industries agrees to indemnify and save and hold harmless the U.S. EPA and Illinois EPA from any and all claims or causes of action arising from acts or omissions of NL Industries in carrying out the activities pursuant to this Consent Order.

29. The U.S. EPA or Illinois EPA shall not be held liable under or as a party to any contract entered into by NL Industries in carrying out the activities pursuant to this Consent Order.

O.

Other Applicable Laws

30. All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, State and Federal laws and regulations. In the event there is a conflict in the application of Federal or State laws or regulations, the more stringent of the conflicting provisions shall apply.

P.

Force Majeure

31(a). Any delay of performance which is caused by circumstances beyond the control of NL Industries shall not be a breach or violation of this Consent Order. The time for performance of any activity so delayed will be extended by a period of time not longer than that which can reasonably be attributed to the circumstances beyond the control of NL Industries. Increased costs or expenses associated with implementation of the activities called for in this document shall not of itself be considered a circumstance beyond the control of NL Industries. NL Industries shall notify the Regional Administrator in writing, with a copy to those persons identified in Paragraph 23(b) of this Order, as soon as possible but not later than ten (10) days after the date when NL

Industries knew or should have known of the occurrence of circumstances that may lead to a claim of force majeure, and not later than ten (10) days after the date of NL Industries' belief that such circumstances shall occur. Such written notification shall be accompanied by all available documentation, including but not limited to third party correspondence, and an affidavit from a responsible corporate official specifying each of the circumstances, NL Industries' rationale for interpreting such circumstances as beyond the control of NL Industries, the actions that NL Industries has taken and/or plans to take to perform the affected activity or activities or to perform them on time, and NL Industries' prediction as to the length of time that the circumstances that constitute the force majeure will delay the affected activity or activities.

(b). In the event that the agencies believe that a force majeure has been improperly claimed by NL Industries, they may institute an appropriate administrative or judicial proceeding wherein NL Industries shall have the burden of going forward in presenting a prima facie case of compliance with Paragraph 31(a), above.

Q.

Reimbursement Of Costs

32(a). Within thirty (30) days of the effective date of this Consent Order, NL Industries shall pay into the Hazardous Substances Response Trust Fund the sum of Five Thousand (\$5,000) Dollars, as reimbursement of U.S. EPA's expenditures (payment to be forwarded to the U.S. EPA, Region V, Regional Hearing Clerk,

230 So. Dearborn, Chicago, Illinois 60604). Payment of this sum shall be in full and complete satisfaction of all past monetary claims of the U.S. EPA for expenditures made prior to the execution of this Consent Order pursuant to CERCLA or otherwise.

(b). No agreement has been reached between Illinois EPA and NL Industries with respect to the payment of any sum to the State of Illinois for past expenditures incurred pursuant to CERCLA. Illinois EPA and NL Industries will commence negotiations regarding this matter within thirty (30) days of receipt of the Illinois itemization of such expenses. Illinois EPA reserves the right to commence an action in an appropriate District Court of the United States, or if such Court declines jurisdiction, in an appropriate State Court, to obtain said payment, provided however, that no such action shall be commenced prior to ninety (90) days subsequent to the date that the last signature is affixed to the foot of this document.

(c). NL Industries shall not be required to reimburse either U.S. EPA or Illinois EPA for work performed during this Consent Order that is unreasonably duplicative.

(d). NL Industries shall also reimburse U.S. EPA and Illinois EPA for reasonable costs associated with agency activities in connection with the Consent Order. Within thirty (30) days of the end of each calendar year, U.S. EPA and Illinois EPA will submit to NL Industries itemized statements for the previous year. Following receipt of the itemized statements, NL Industries shall pay, within sixty (60) days, into the (1) State of Illinois Hazardous Waste Fund the required

sum due Illinois EPA, and (2) into a fund to be designated by the U.S. EPA, the required sum due the U.S. EPA, unless NL Industries contends that the sums or either of them were not reasonably incurred in accordance with the law or actually incurred. In the event that NL Industries shall attempt to resolve said matter, through negotiation, and if the parties fail to agree within thirty (30) days, it shall commence an action in an appropriate District Court where it shall have the burden of proving that the sums are unreasonable or not in accordance with law.

R.

Termination and Satisfaction

33. The provisions of this Consent Order (with the exception of the document retention provision of Paragraph 25(d)) shall be deemed satisfied and this Consent Order with the exception of the covenants not to sue shall be of no further force or effect upon final agency action with respect to the work described in Paragraph 14(b)(8).

S.

Public Comment And Effective
Date Of Consent Order

34. Within fifteen (15) days of the affixing of the last signature to this Consent Order, U.S. EPA shall announce the availability of this Consent Order to the public for review and comment. U.S. EPA shall accept comments from the public for a period of thirty (30) days after such announcement. If sufficient interest warrants, as determined by the agencies, a

public meeting will be held. At the end of the comment period, the agencies shall review all such comments and shall either:

- (a) Determine that the Consent Order should be made effective in its present form, in which case NL Industries shall be so notified in writing. The Consent Order shall become effective on the date of such notification; or
- (b) Determine that modification of the Consent Order is necessary, in which case NL Industries will be informed as to the nature of all required changes. If NL Industries agrees to the modifications, the Consent Order shall be so modified and shall become effective upon signature of the parties to the modified Consent Order.


In the event that NL Industries is unable to agree on modifications required by the agencies, as a result of public comment, this Consent Order will be deemed void and of no affect. In such event, U.S. EPA and Illinois EPA reserve all rights to take such actions as they deem necessary, and NL Industries reserves all rights to contest such actions.

T.

Covenant Not To Sue

35. To avoid adjudication between the parties hereto and the expense that would be incurred in connection with adjudication, and to set to rest the differences existing among them and based on information known to the parties when settling this matter, U.S. EPA and Illinois EPA have determined that full performance of the commitments made in this Consent Order constitutes full satisfaction of any and all civil claims which U.S. EPA or Illinois EPA may have against NL Industries with

respect to conducting an RI and FS pursuant to Section 104(b) of CERCLA and 40 C.F.R. §300.68(e) through (i) concerning the contamination at and from the site addressed in this Consent Order. Provided, however, that Illinois EPA reserves whatever rights it has to proceed against NL Industries in the event that negotiations fail to produce a settlement described in Paragraph 31(b), above. This Consent Order shall not be construed as releasing NL Industries from responsibility or liability under other provisions of CERCLA or any other Federal or State law.

By: 
Sive, Paget & Riesel, P.C.
By Daniel Riesel
Attorneys for NL Industries Inc.

Feb 27, 1985
Date

By: _____
Illinois Environmental
Protection Agency

Date

By: _____
Office of the Illinois
Attorney General

Date

By: _____
Regional Administrator,
United States Environmental
Protection Agency, Region V

Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101



RECEIVED
MAR 24 1988
R. E. A.
*March 24, 1988
is the date
the order for
signature
is due*

IN THE MATTER OF)
E.I. DuPont de Nemours and)
Company)
Respondent)
Proceedings under Sections 104)
and 122 of the Comprehensive)
Environmental Response,)
Compensation and Liability)
Act of 1980, as amended by)
the Superfund Amendments and)
Reauthorization Act of 1986,)
42 U.S.C. §§ 9604 and 9622.)

CONSENT ORDER

Docket No. VII-88-F0009

PRELIMINARY STATEMENT

1. This Consent Order is entered into by the United States Environmental Protection Agency, Region VII (EPA) and E.I. DuPont de Nemours and Company ("DuPont" or "Respondent") pursuant to Sections 104 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (CERCLA), 42 U.S.C. §§ 9604 and 9622.

2. Pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, whenever a hazardous substance is released or there is a substantial threat of a release of a hazardous substance

into the environment, the President is authorized to take removal or remedial action and any other response measure including actions described in Section 104(b), 42 U.S.C. 9604, consistent with the National Contingency Plan which the President deems necessary to protect the public health or welfare or the environment. When the President determines that such action will be done properly and promptly by the owner or operator of the facility or by any other responsible party, the President may allow such person to carry out the action, conduct the remedial investigation, or conduct the feasibility study in accordance with Section 122 of CERCLA, 42 U.S.C. § 9622. Furthermore, no remedial investigation or feasibility study (RI/FS) shall be authorized except upon a determination by the President that the party is qualified to conduct the RI/FS and only if the President contracts with or arranges for a qualified person to assist the President in overseeing and reviewing the conduct of such RI/FS and if the responsible party agrees to reimburse the Fund for any costs incurred by the President under, or in connection with, the oversight contract or arrangement.

3. Pursuant to Section 122(d)(3) of CERCLA, 42 U.S.C. § 9622(d)(3), whenever the President enters into an agreement under this section with any potentially responsible party with respect to action under Section 104(b), 42 U.S.C. 9604, the President shall issue an order or enter into a

decree setting forth the obligations of such party. The United States District Court for the district in which the release or threatened release occurs may enforce such order or decree.

4. The authority vested in the President pursuant to the above-cited provisions of CERCLA was delegated to the Administrator of the EPA by Executive Order 12580, 52 Fed. Reg., 2923, dated January 29, 1987, and was further delegated to the Regional Administrators by EPA Delegation No. 14-14-C, dated February 27, 1987.

STATEMENT OF PURPOSE

5. In entering into this Consent Order, the mutual objectives of EPA and DuPont are: (1) to determine fully the nature and extent of the threat to the public health or welfare or the environment caused by the release or threatened release of hazardous substances, pollutants or contaminants from the DuPont Landfill Cell (Remedial Investigation), and (2) to evaluate alternatives for the appropriate extent of remedial action to prevent or mitigate the migration or the release or threatened release of hazardous substances, pollutants, or contaminants from the ~~site~~ DuPont Landfill Cell (Feasibility Study). The activities conducted pursuant to this Consent Order are subject to approval by EPA and shall be consistent with the National Contingency Plan, 40 C.F.R. Part 300.

FINDINGS OF FACT

6. EPA has determined and DuPont agrees that all findings of fact necessary for the issuance of this Consent Order pursuant to Sections 104 and 122 of CERCLA have been made and are outlined below.

7. The DuPont Industrial Waste Cell ("Cell" or "Facility") is located at the Lawrence Todtz Farm Site (Site). The Site is located at SE1/4, SW1/4, SW1/4, Section 29, Township 81 North, Range 6 East, of the 5th Principal Meridian, Clinton County, about one and one-quarter miles west of Camanche, Iowa. The Lawrence Todtz Farm site was added to the National Priority List (NPL) in June of 1986.

8. The Respondent E.I. DuPont de Nemours and Company ("DuPont" or "Respondent") is a Delaware corporation which operated a plant in Clinton, Iowa for the manufacture of cellophane until about 1975.

9. In the late 1960's, Lawrence Todtz leased a former gravel pit area to Donald Null for use as a municipal landfill for the City of Camanche, Iowa. In about 1971, the McManus Brothers (Robert and Donald) took over operation of the landfill. The McManus Brothers had a written contract with Lawrence Todtz.

10. DuPont, pursuant to an oral agreement with the McManus Brothers, had a separate industrial landfill cell constructed in the northwest corner of the former gravel pit

area for the disposal of waste from the cellophane plant in Clinton, Iowa and used the cell until about 1975.

11. The DuPont Industrial Waste Cell is that portion of the Todtz property that is the facility subject to this Consent Order. The DuPont Industrial Waste Cell was reportedly about 2.5 acres with a clay liner overlain with a polyethylene membrane. DuPont disposed of about 4,300 tons of waste from the cellophane plant at the landfill cell between about 1972 and 1975. A clay cap was installed in about 1975.

12. Investigations of the site were conducted by the U.S. EPA Field Investigation Team (FIT) contractors in August 1980 and August 1985.

13. During the period from about August 1986 to August 1987, the U.S. EPA REM II team conducted further investigation of the site which included the installation of ground water monitoring wells and multimedia sampling and analysis. Groundwater samples taken from monitoring wells downgradient from the industrial cell have shown the presence of levels as high as 3,600 ug/l for carbon disulfide, 400 ug/l for lead, 8,800 ug/l for toluene, 97,000 ug/l for tetrahydrofuran, 1,000 ug/l for 4-methylphenol and 1.10 ug/l for mercury. These compounds are among those DuPont reported were used at the Clinton cellophane plant.

14. Exposure to carbon disulfide may adversely affect the central nervous system. Neuritis and visual

disturbance are the most common early changes observed. Sensory changes are often followed by gradual loss of strength. Mental symptoms vary from simply excitation or depression to mental deterioration and the development of a Parkinson-like disease. Carbon disulfide has been found to bind to blood hemoglobin and other plasma proteins and adversely affects kidney and liver function as well as zinc metabolism.

15. Tetrahydrofuran mainly targets the respiratory and central nervous systems. Irritation of the skin and mucus membranes, including the eyes, nose, and upper respiratory tract, are the predominant effects observed as a result of low concentration exposures. Nausea, dizziness, and headache may accompany these symptoms.

16. Potential health effects resulting from exposure to methyl phenols include intense burning of the mouth and throat followed by marked abdominal pain. Collapse, manifested by muscular weakness and unconsciousness, may occur if these compounds are ingested in high amounts. Increased respiration and body temperature fluctuations may precede respiratory failure.

17. Exposure to heavy metals such as lead, arsenic, and mercury may result in a variety of deleterious effects affecting the GI tract and central nervous system, depending on the compound. Impaired kidney function may also occur.

Symptoms of insomnia, lassitude, weight loss, and abdominal irritation may occur as a result of acute exposure.

18. A sand gravel terrace associated with glacial outwash activity forms the natural uppermost aquifer around the Site. Domestic wells are located downgradient of the Site within one-half mile and are primary potential receptors for contaminated ground water. Surface water bodies in the vicinity of the Site which are primary potential receptors for contaminated run-off and/or recharge are the north and south ponds, Willow Lake, and Bandixen Lake. Secondary potential receptors include other downgradient lakes and the federally owned and managed Upper Mississippi River Fish and Wildlife refuge located less than one mile from the Site.

19. By letter dated August 4, 1987, EPA notified DuPont of EPA's intention to conduct a Remedial Investigation and Feasibility Study to respond to releases and threatened releases of hazardous substances at the site if such actions were not taken by DuPont or some other person. EPA offered DuPont the opportunity to undertake these response actions upon providing assurances that the response actions would be properly conducted, such as by entering into an administrative consent order. A meeting was held between EPA and DuPont on September 10, 1987, to discuss the results of the REM II investigations of the site including the groundwater sampling conducted during the preceding several months and the need

for and scope of an RI/FS for the site. By letter dated September 24, 1987, DuPont confirmed its agreement to conduct an RI/FS for the DuPont Industrial Waste Cell pursuant to an administrative consent order. DuPont has retained an engineering firm with expertise in hazardous waste site investigations and remediation.

CONCLUSIONS OF LAW

20. The DuPont Industrial Landfill cell is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

21. The Respondent is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

22. Some of the wastes disposed of at the facility, including but not limited to, lead, mercury, tetrahydrofuran, toluene, 4-methylphenol (paracresol) and carbon disulfide are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

23. Respondent was the generator of the hazardous substances, pursuant to Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

24. The actions required by this Order are consistent with the National Contingency Plan, 40 C.F.R. Part 300, and are necessary to protect the public health and welfare and the environment.

25. The past, present, or potential migration of hazardous substances from the facility constitute an actual and/or threatened "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

DETERMINATIONS

26. The Regional Administrator, EPA Region VII, has determined that the release and threatened release of hazardous substances into the environment from the landfill cell requires the response actions set forth hereafter; that DuPont is qualified to conduct the RI/FS and will properly and promptly perform such response actions; that the actions required by this Agreement are necessary to protect the public health, welfare or the environment; and that if conducted as set forth herein, such actions will be consistent with the National Contingency Plan, 40 C.F.R. Part 300.

27. The Respondent consents to and will not contest EPA's jurisdiction regarding this Consent Order. The Respondent agrees to undertake all actions required of it by the terms and conditions of this Consent Order.

CONSENT ORDER

28. The Respondent shall commence work and thereafter implement the tasks detailed in the Remedial Investigation and Feasibility Study Work Plan (RI/FS Work Plan) which is attached hereto and incorporated herein as Attachment 1 including the statement of scope, contingency triggers and

schedule which is attached hereto and incorporated herein as Attachment 2. The RI/FS Work Plan has been approved by EPA. The work shall be conducted in accordance with the EPA Remedial Investigation and Feasibility Study guidance documents and with the standards and specifications contained in the RI/FS Work Plan, and the schedule contained in Attachment 2.

29. The Respondent shall provide preliminary and final reports to EPA according to the schedule contained in Attachment 2.

30. After EPA reviews the preliminary and final reports, EPA shall notify the Respondent in writing, of EPA's approval or disapproval of these reports or any part thereof. After review of any report, EPA may also notify the Respondent in writing of EPA disapproval of Respondent's implementation of the approved Work Plan.

31. In the event of any EPA disapproval of a submitted report or disapproval of Respondent's implementation of the approved Work Plan, the EPA shall send Respondent a Notice of Disapproval delineating the deficiencies, recommending revisions to the reports and additional or modified work to cure the deficiencies in the work agreed to and setting a schedule for response by Respondent.

32. Thereafter, the Respondent shall amend and submit to EPA revised reports and perform such additional or

modified work to cure the deficiencies in the reports or work agreed to in accordance with the EPA recommendations.

33. In the event of subsequent disapproval of such revised reports or additional or modified work, the EPA retains the right to amend such reports, perform additional or modified work, conduct the complete RI/FS pursuant to its authority under CERCLA, and/or undertake any judicial or other remedy available to it by law.

34. EPA may determine that additional tasks, including remedial investigatory work and/or engineering evaluation, are necessary as part of the RI/FS in addition to EPA approved Work Plan tasks including reports, which have been completed pursuant to this Order and may request Respondent to implement any such additional tasks as part of the RI/FS.

35. The Respondent shall implement any additional tasks in addition to the tasks detailed in the EPA approved Work Plan as are mutually agreed upon by EPA and DuPont. The additional work shall be completed in accordance with the standards, specifications and scheduled determined or approved by EPA.

36. All work performed pursuant to this Consent Order shall be under the direction and supervision of a professional engineer or geologist with expertise in hazardous waste site investigations and remediation. Within 30 days of the effective date of this Consent Order, Respondent shall notify EPA in writing of the name, title, and qualifications

of the engineer or geologist, and of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Consent Order.

QUALITY ASSURANCE

37. All samples analyzed pursuant to this Agreement shall be analyzed by a laboratory which participates in a quality assurance/quality control program equivalent to that specified in the document entitled "USEPA Contract Laboratory Program Statement of Work for Organic Analysis" (September 1984) (hereinafter "Contract Lab Statement of Work").

38. All sample collection and analysis shall be performed in compliance with EPA-approved methods, including timing of analyses, documentation of sample collection, handling and analysis, as described in the following documents:

a. "NEIC Manual for Groundwater/Subsurface Investigations at Hazardous Waste Sites," Document No. EPA/330/9-81-002; and

b. Contract Lab Statement of Work.

39. Laboratory deliverables as specified in the Contract Lab Statement of Work shall be submitted to EPA for all analytical work performed pursuant to this Order. Any deviations from the procedures and methods set forth in these documents must be approved in writing by EPA prior to use.

40. Respondent shall use the quality assurance, quality control, and chain of custody procedures specified in the Quality Assurance Project Plan for all sample collection and analysis performed pursuant to this Order.

41. All contracts for field work and laboratory analysis shall provide that EPA representatives are allowed access, for auditing and evaluation purposes, at reasonable times upon reasonable request, to all laboratories and personnel utilized by Respondent for sample collection and analysis and other field work. Upon request by EPA, the laboratories shall perform analysis of a reasonable number of known samples provided by EPA to demonstrate the quality of the analytical data.

REPORTING

42. Beginning with the month following the effective date of this order, Respondent shall provide EPA with written progress reports for each month, by the tenth day of the following month. At a minimum, these progress reports shall: (1) describe the actions, progress, and status of projects which have been taken toward achieving compliance with this Consent Order; (2) describe all plans and activities completed during the past month, as well as the actions which are scheduled for the next month; (3) identify any requirements under this Order that were not completed as provided and any problem areas and anticipated problem areas in complying with this Consent Order; and (4) include the results of sampling and tests and other data generated pursuant to the Work Plan(s).

ACCESS

43. EPA and/or any EPA representative, including EPA contractors, are authorized to enter and freely move about all property at the Facility for the purposes of, inter alia: interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts related to the Facility; reviewing the progress of the Respondent in carrying out the terms of this Order; conducting such sampling and tests as EPA or its representative deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by the Respondent. The Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, that pertain to work undertaken pursuant to this paragraph, and shall comply with all approved health and safety plans.

44. To the extent that work required by the Work Plan must be done on property not owned or controlled by Respondent, Respondent will use its best efforts to obtain site access agreements from the present owner(s) of such property within thirty (30) days of the effective date of this Order. Any such access agreement shall be incorporated by reference into this Order. In the event that agreements for site access are not obtained within thirty (30) days of

the effective date of this Consent Order, Respondent shall notify EPA regarding both the lack of and its failure to obtain such agreements within seven (7) days thereafter. In the event that EPA obtains access for Respondent, all costs incurred by the EPA shall be reimbursed by Respondent and Respondent shall undertake EPA approved work on such property. Nothing in this section limits or otherwise affects EPA's right of access and entry pursuant to applicable law, including RCRA and CERCLA.

SAMPLING AND DATA/DOCUMENT AVAILABILITY

45. Respondent shall make available to EPA all results of sampling, tests, or other data generated by or on its behalf with respect to the implementation of this Consent Order. Respondent shall submit these results in the progress reports described in the "Reporting" Section of this Consent Order.

46. Respondent shall notify EPA at least seven (7) days before conducting any well drilling, installation of equipment, or sampling. At the request of EPA, Respondent shall provide or allow EPA or its authorized representative to take split samples of all samples collected by Respondent pursuant to this Consent Order. Similarly, at the request of Respondent, EPA shall allow Respondent or its authorized representatives to take split or duplicate samples of all

samples collected by EPA under this Consent Order. EPA shall notify Respondent at least seven (7) days before conducting any sampling under this Consent Order.

47. All information and data shall be available to the public except to the extent that it is confidential business information. Respondent may, if it desires, assert a business confidentiality claim covering part or all of the information submitted to, or reviewed by, EPA. Such a claim may be made by placing on (or attaching to) the information, at the time of its submittal to, or review by, EPA, a cover sheet, stamped or printed legend, or other suitable form of notice employing language such as "trade secret," "proprietary," or "company confidential." Allegedly confidential portions of otherwise non-confidential documents should be clearly identified and may be submitted separately to facilitate identification and handling by EPA. If confidential treatment is sought only until a certain date or until the occurrence of a certain event, the request should so state. Analytical data shall not be claimed as confidential by the Respondent. Information submitted for which a claim of confidentiality is made will be treated according to the procedures specified in 40 C.F.R. Part 2, Subpart B and Section 104(e)(7) of CERCLA, 42 U.S.C. 6904(e)(7). If no such claim is made when information is received by EPA, the information may be made available to the public without further notice.

RECORD PRESERVATION

48. Respondent agrees that it shall preserve, during the pendency of this Consent Order and for a minimum of six (6) years after its termination, all records and documents in its possession or in the possession of its divisions, employees, agents or consultants or contractors which relate in any way to this Consent Order or to hazardous waste management and disposal at the Facility. At the conclusion of six (6) years, Respondent shall then make such records available to EPA for inspection or EPA's retention or shall provide copies of any such records to EPA.

49. Respondent further agrees that within 5 days of the effective date of this Order or of retaining or employing an agent, consultant or contractor, whichever comes first, Respondent will enter into an agreement, to be confirmed in writing within 15 days, with its agents, consultants and/or contractors whereby its agents, consultants and/or contractors will be required to maintain and preserve during the pendency of this Order and for a minimum of six years after its termination, all records and documents within their respective possession which relate in any way to this Order or to hazardous waste management and disposal at the facility.

PROJECT COORDINATOR

50. On or before the effective date of this Consent Order, EPA and Respondent shall each designate a Project

Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of this Consent Order. The EPA Project Coordinator will be EPA's designated representative. To the maximum extent possible, all communications between Respondent and EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed through the Project Coordinators. The parties agree to provide at least seven (7) days written notice prior to changing Project Coordinators. The absence of the EPA Project Coordinator from the Facility shall not be cause for the stoppage of work.

NOTIFICATION

51. Unless otherwise specified, reports, notice or other submissions required under this Consent Order shall be in writing and shall be sent to:

Nancy Johnson, P.E.
Regional Project Manager
U.S. EPA, Region VII
726 Minnesota Avenue
Kansas City, Kansas 66101

Alan Egler
Engineering Department
E.I. DuPont de Nemours & Company
Wilmington, Delaware 19898

REIMBURSEMENT OF OVERSIGHT COSTS

52. Beginning from the end of 1988 fiscal year, EPA shall submit to the Respondent an accounting and an explanation of all oversight costs incurred with respect to this Order during the previous fiscal year. Within fourteen (14) days of receipt of such accounting, Respondent may

request the information used or relied upon to prepare the accounting, and such information shall be made available to Respondents for inspection and/or copying. Within sixty (60) calendar days of receipt of each such initial accounting, or of the supplemental information, whichever is later, the Respondents shall remit a check to the U.S. EPA for the full amount of those costs, unless the Respondents object that all or a portion of the costs are or were not consistent with the NCP or not actually incurred or not properly allocable to this Consent Order. Any such portion of the costs objected to by the Respondents shall be resolved pursuant to the Dispute Resolution provisions of this Consent Order.

53. Payments to EPA shall be made to the order of the Hazardous Substance Response Fund, and shall be forwarded to the U.S. Environmental Protection Agency, Superfund Accounting, P.O. Box 371003M, Pittsburgh, Pennsylvania 15251, ATTN: Collection Officer for Superfund. A copy of the check and transmittal letter should be sent to the EPA contact specified herein.

DELAY IN PERFORMANCE/STIPULATED PENALTIES

54. Unless EPA determines that the delay is attributable to a force majeure as defined in the Section entitled "Force Majeure and Excusable Delay," for each period of time as set forth below that the Respondent fails to submit the

following reports at the times required pursuant to this Consent Order, Respondent shall pay the sums set forth below as stipulated penalties. Stipulated penalties shall accrue for failure to submit the preliminary agency review draft or a final public review draft of any RI report or any FS report at the time required pursuant to this Consent Order: \$2,000 for the first week of delay or part thereof and \$5,000 for each day of delay after the first week. The schedule of times for submission of the aforesaid reports are set out in Attachment 2.

55. Any stipulated penalties paid pursuant to this Consent Order shall be payable within twenty one (21) days after Respondent's receipt of written demand by EPA, shall be paid by certified or cashier's check made payable to the Hazardous Substance Response Fund, and shall be remitted to:

EPA-Superfund
P.O. Box 371003M
Pittsburgh, Pennsylvania 15251

A letter describing the basis for the penalties shall accompany the check. Copies of the transmittal of payment shall be sent to the EPA contact specified herein.

56. The stipulated penalties set forth in this Section do not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the requirements

of this Consent Order, nor shall payment of said penalties relieve Respondent of the responsibility to comply with this Consent Order. If the Respondent fails to pay stipulated penalties, the EPA may institute proceedings to collect the penalties.

57. Should Respondent fail to comply with a time requirement of any tasks required by this Consent Order, the period of noncompliance shall terminate upon Respondent's performance of said requirement.

58. If Respondent disputes the basis for imposition of stipulated penalties, the issue shall be resolved under the Dispute Resolution procedures of this Consent Order. The question of whether and in what amount Respondent shall be liable for penalties which occurred prior to and during the period of dispute shall be resolved by the Dispute Resolution decision maker as part of that original dispute regarding the basis for imposition of stipulated penalties.

DISPUTE RESOLUTION

59. If Respondent disagrees, in whole or in part, with any EPA disapproval or other decision or directive made by EPA pursuant to this Consent Order, Respondent shall notify EPA in writing of its objections and the basis therefore within ten (10) calendar days of receipt of EPA's disapproval, decision or directive. EPA and Respondent shall then have an additional

fourteen (14) calendar days from EPA's receipt of Respondent's objections to attempt to resolve the dispute. If agreement is reached, the resolution shall be reduced to writing, signed by representatives of each party and incorporated into this Consent Order. If the parties are unable to reach agreement within the aforesaid fourteen (14) day period, EPA shall provide a written statement of its decision to Respondent, which shall be incorporated into this Consent Order.

60. In any proceeding to enforce the terms of this Consent Order or to collect penalties for violations thereof, the Respondents may defend on the basis that EPA's resolution of any properly invoked dispute was arbitrary and capricious or not otherwise in accordance with applicable law.

FORCE MAJEURE AND EXCUSABLE DELAY

61. Respondent shall perform the requirements under this Consent Order within the time limits set forth or approved or established herein, unless the performance is prevented or delayed solely by events which constitute a force majeure. For purposes of this Consent Order, a "force majeure" is defined as an event arising from causes beyond the reasonable control of the Respondents including its consultants and contractors which delays performance of any obligations required by this Consent Order. Any delay caused in whole or in part by action or inaction by federal, state

or local regulatory authorities or by the failure to obtain access to the site which could not have been overcome by the best efforts of the Respondents, shall be considered a force majeure and shall not be deemed a violation of any obligation required by this Consent Order. Unanticipated or increased costs of performance, changed economic circumstances, or normal precipitation events shall not be considered circumstances beyond the control of the Respondent.

62. Respondent must notify EPA in writing seven (7) days after it becomes aware of events which it knows or should know constitute a force majeure. Such notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to minimize the delay, and an estimated timetable for implementation of these measures. Respondent shall adopt all reasonable measures to avoid and minimize the delay. Failure to comply with the notice provision of this section shall be grounds for EPA to deny Respondent an extension of time for performance.

63. If Respondent demonstrates to EPA that the delay has been or will be caused by circumstances beyond the reasonable control of respondent, its consultants and contractors, the time for performance for that element of the Work Plan shall be extended for a period equal to the delay resulting from such circumstances. This shall

be accomplished through written amendment to this Consent Order. Such an extension does not alter the schedule for performance or completion of other tasks required by the Work Plan unless these are also specifically altered by amendment of the Consent Order or underlying plan. In the event that EPA and Respondent cannot agree that a force majeure event has occurred or if there is no agreement on the length of the extension, the dispute shall be resolved in accordance with the Dispute Resolution provisions of this Consent Order.

PENALTIES FOR NON-COMPLIANCE

64. Respondent is hereby advised that pursuant to Section 109 and Section 122(e) of CERCLA, 42 U.S.C. § 9609 and 9622(e), failure or refusal to comply with any term or condition of this consent order may subject the Respondent to a civil penalty of up to \$25,000 per day of violation and up to \$75,000 per day of violation in the case of a second or subsequent violation.

65. Respondent is further advised that, pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), any person who is liable for a release or threat of release of a hazardous substance and who fails without sufficient cause to provide properly the removal or remedial actions specified in this Order may be liable to the United States for punitive damage in an amount at least equal to and not more than three times the amount of any costs incurred by the United States as a result of such failure to take proper action.

RESERVATION OF RIGHTS

66. EPA expressly reserves all rights and defenses that it may have, including the right both to disapprove of work performed by Respondent and to request that Respondent perform tasks in addition to those stated in the Work Plan.

67. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable State or federal law.

68. EPA reserves the right to take any enforcement action pursuant to CERCLA, RCRA, or any other available legal authority, including without limitation, the right to seek injunctive relief, including actions to compel compliance with this Order, for cost recovery, for monetary penalties, and for punitive damages.

69. EPA reserves the right to perform any portion of the work consented to herein or any additional site characterization, feasibility study, and response/corrective actions as it deems necessary to protect public health or welfare or the environment. EPA may exercise its authority under CERCLA to undertake removal actions or remedial actions at any time. In any event, EPA reserves its right to seek reimbursement from Respondent for such additional costs incurred by the United States, and indeed for the costs of any response actions taken by EPA notwithstanding compliance with the terms of this Consent Order.

70. EPA reserves the right to bring an action against Respondent or any other person pursuant to Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of all response costs not reimbursed by Respondent, including any oversight costs incurred by the United States related to this Agreement, as well as any other past and future costs by the United States in connection with the site. In any such action, E.I. duPont de Nemours Company reserves all its rights to raise all defenses and challenges, factual and legal.

71. Except as otherwise provided in the Federal Rules of Evidence, nothing in this Consent Order shall be construed as an admission of law or fact by the Respondents, and no finding of fact, conclusion of law, or other statement herein nor this Consent Order itself may be used in any fashion or admitted into evidence, in any proceeding against Respondents other than a proceeding by EPA to enforce the terms of this Consent Order and in such proceeding only for the purposes of enforcing this Consent Order or a proceeding by EPA to recover costs of the government and in such proceeding not for the purposes of proving liability for or invalidity of the claim or amount.

OTHER CLAIMS AND PARTIES

72. Nothing in this Consent Order shall constitute or be construed as a release for any claim, cause of action

or demand in law or equity against any person, firm, partnership, or corporation not a signatory to this Consent Order for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

OTHER APPLICABLE LAWS

73. All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the substantive requirements of all applicable local, state, and federal laws and regulations.

INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

74. Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of Respondent or its agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Consent Order. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondent or the United States under their various contracts.

75. In entering into this Agreement, E.I. duPont de Nemours Company waives any right it may have to seek reimbursement under Section 106(b)(2) of CERCLA, 42 U.S.C. § 9606(b)(2), for any costs incurred in complying with this Agreement.

SUBSEQUENT MODIFICATION

76. This Consent Order may be amended by mutual agreement of EPA and Respondent. Such amendments shall be in writing, shall have as their effective date the date on which they are signed by both parties, and shall be incorporated into this Consent Order.

77. Any reports, plans, specifications, schedules and attachments required by this Consent Order are, upon approval by EPA, incorporated into this Consent Order. Any non-compliance with such EPA-approved reports, plans, specifications, schedules, and attachments shall be considered a failure to achieve the requirements of this Consent Order and shall subject Respondent to the Penalty Provisions of this Consent Order and other sanctions.

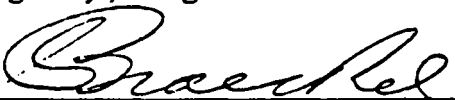
78. No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, and any other writing submitted to Respondent will be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this Consent Order.

TERMINATION

79. The provisions of this Consent Order shall terminate upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Consent Order, including any additional tasks which EPA has determined to be necessary have been satisfactorily completed.

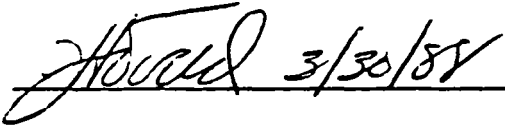
IN WITNESS WHEREOF, the parties have affixed their signatures below:

For the United States Environmental Protection
Agency, Region VII

 3/15/88

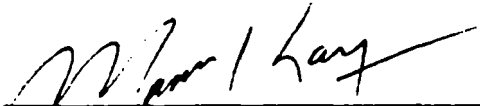
Gerhardt Braeckel
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region VII

For E.I. duPont de Nemours Company

 3/30/88

Howard
duPont

IT IS SO ORDERED.



Morris Kay
Regional Administrator
U.S. Environmental Protection Agency
Region VII

4-4-88

Date